

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

wherein making the carcass structure involves formation of at least one first carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material; and

depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

wherein each respective deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-deposited deposition section, substantially over an entire length of the respective deposition section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

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D51
wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support, and

wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section.

46. (twice amended) A method of making a tire, comprising:

making a carcass structure;

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applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

wherein making the carcass structure involves formation of at least one carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material; and

depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

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wherein each deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-deposited deposition section to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section,

wherein formation of the at least one carcass ply further comprises pressing the at least one strip element at the side portions of the deposition sections to define regions of greater width close to radially-inner circumferential edges of the carcass structure, and

wherein the pressing is carried out on the at least one strip element during depositing the at least one continuous strip element by exerting a pressing action on a section of the at least one strip element before that section is deposited onto the toroidal support.

76. (once amended) A method of making a tire, comprising:

making a carcass structure;

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

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applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions;

applying at least one inextensible annular structure to an area close to inner circumferential edges of at least one carcass ply; and

vulcanizing the tire;

wherein making the carcass structure involves formation of the at least one carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material; and

depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

wherein each respective deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-deposited deposition section, substantially over an entire length of the respective deposition section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

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wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section, and

wherein the formation of the at least one carcass ply occurs before applying the at least one inextensible annular structure to the area close to the inner circumferential edges of the at least one carcass ply.

77. (once amended) A method of making a tire, comprising:

making a carcass structure;

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

wherein making the carcass structure involves formation of at least one carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material;

and

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depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

wherein each respective deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-deposited deposition section, substantially over an entire length of the respective deposition section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section, and

wherein the at least one continuous strip element is deposited onto an exterior surface of the toroidal support or a previously-deposited deposition section.

78. (once amended) A method of making a tire, comprising:

making a carcass structure;

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

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applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

wherein making the carcass structure involves formation of at least one first carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material; and

depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

wherein each respective deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-deposited deposition section, substantially over an entire length of the respective deposition section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

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wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section, and

wherein crown portions of consecutive deposition sections are parallel to each other.

79. (once amended) A method of making a tire, comprising:

making a carcass structure;

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

wherein making the carcass structure involves formation of at least one carcass ply, comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomeric material; and

depositing the at least one continuous strip element onto a toroidal support in alternating deposition sections;

wherein each respective deposition section extends in a substantially U-shaped conformation against a profile in transverse section of the toroidal support or a previously-

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deposited deposition section, substantially over an entire length of the respective deposition section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side portions,

wherein the crown portion of each deposition section is arranged consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein the side portions of each deposition section are each partly overlapped with a side portion of at least one consecutive deposition section, and

wherein a crown section of each carcass ply comprises a single layer of the deposition sections.

80. (once amended) A method of making a tire, comprising:

making a carcass structure;

applying a belt structure to the carcass structure at a circumferentially-external position of the carcass structure;

applying a tread band to the belt structure at a circumferentially-external position of the belt structure;

applying at least one pair of sidewalls to the carcass structure at laterally-opposite positions; and

vulcanizing the tire;

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wherein making the carcass structure involves formation of at least one carcass ply,
comprising:

preparing at least one continuous strip element comprising a plurality of longitudinal and
parallel thread elements at least partly coated with at least one layer of raw elastomeric material;
and

depositing the at least one continuous strip element onto a toroidal support in alternating
deposition sections;

wherein each respective deposition section extends in a substantially U-shaped
conformation against a profile in transverse section of the toroidal support or a previously-
deposited deposition section, substantially over an entire length of the respective deposition
section, to define two side portions and a crown portion,

wherein the side portions substantially extend in planes orthogonal to a geometric axis of
rotation of the toroidal support at mutually-spaced-apart positions in an axial direction,

wherein the crown portion extends in a radially-external position between the side
portions,

wherein the crown portion of each deposition section is arranged consecutively in side-
by-side relationship along a circumferential extension of the toroidal support, and

wherein, for consecutive deposition sections; a side portion of a second-deposited section
disposed farther from an equatorial plane of the tire overlaps a side portion of a first-deposited
section disposed closer to the equatorial plane of the tire.

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